

DRAWING AMENDMENTS:

Enclosed herewith, please find replacement sheets containing figures 16 and 17. As requested by the Examiner over the telephone on November 17, 2005, figure 16 has been amended by removing certain lines. Additionally, as requested by the Examiner, figure 17 has been amended by moving and removing certain lines. Additionally, in figure 17, reference numeral "80" is now depicted. Applicants have not introduced new matter by way of these amendments to the drawings.

REMARKS**I. General**

The drawings were objected to because, according to the Examiner, Figures 16 and 17 were unclear. Applicants have obviated this objection by way of the replacement sheets enclosed herewith which contain changes proposed by the Examiner by way of a telephone discussion on November 17, 2005. Accordingly, Applicants respectfully request entry of the amended drawings.

Claims 19 and 27 were objected to because, according to the Examiner, there is insufficient antecedent basis for "the cap", because the cap is not positively recited. Applicants have amended claim 19 to recite "a cap." Accordingly, Applicants respectfully request withdrawal of the objection to claim 19. With respect to claim 27, Applicants point out that element b as filed recited "a retaining surface configured to retain a cap." Therefore, Applicants respectfully submit that proper antecedent basis exists for "the cap" as recited in element d. Accordingly, Applicants respectfully request that the objection to claim 27 be withdrawn as well.

Claims 1-22 and 26-47 were rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-6 of U.S. Patent No. 6,749,386 to Harris (hereinafter referred to as "Harris") in view of U.S. Patent No. 5,302,069 to Toth et al. (hereinafter referred to as "Toth"). For the reasons that follow, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claims 1-4 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,082,409 to Bias (hereinafter referred to as "Bias"). For the reasons that follow, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claims 1-4 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,784,555 to Cantrell (hereinafter referred to as "Cantrell"). For the reasons that follow, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claims 5-17 and 33-47 were rejected under 35 U.S.C. § 102(b) as being anticipated, or in the alternative, under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 5,626,449 to McKinlay (hereinafter referred to as "McKinlay"). For the reasons that follow, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claims 1-4, 18-22, and 26-32 were rejected under 35 U.S.C. 103(a) as being obvious over McKinlay in view of Toth. For the reasons that follow, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claims 23-25 were rejected under 35 U.S.C. 103(a) as being obvious over McKinlay in view of Toth, in further view of U.S. Patent No. 5,324,148 to Notaro (hereinafter referred to as "Notaro"). For the reasons that follow, Applicants respectfully request reconsideration and withdrawal of this rejection.

II. The judicially created doctrine of obviousness-type double patenting rejection of Claims 1-22 and 26-47 should be withdrawn.

Claims 1-4 recite "the cap is retained on the nut so that an interference fit is achieved between the cap and the nut." Claims 5-13 recite "a cap retained by the nut." Claims 14-18 recite "a nut that retains the cap." Claims 19-22 and 26 recite "the cap is retained on the nut so that an interference fit is achieved between the cap and the nut." Claims 27-32 recite "an interference fit is achieved with the retaining surface." Claims 33-47 recite "a cap retained by a nut." According to the Examiner, "it would have been obvious to one of ordinary skill in the art to employ a retaining surface to the nut taught by Harris, in order to provide a press-fit surface for attaching a protective or decorative cap to said nut, as suggested by Toth et al." For the reasons that follow, Applicants respectfully contend that it would not be obvious to utilize the cap of Toth in conjunction with the nut of Harris.

The legal concept of prima facie obviousness allocates who has the burden of going forward with production of evidence in each step of the examination process. M.P.E.P. § 2142. The Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. M.P.E.P. § 2142. If the Examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness. M.P.E.P. § 2142. Furthermore, if an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. M.P.E.P. § 2143.03.

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." M.P.E.P. § 2143.03. "It is essential that office personnel find some motivation or suggestion to make the claimed invention in light of the prior art teachings." M.P.E.P. § 2144.08, Part II.A. A rejection based on a prima facie case of obviousness is improper if the combination of the references teach every element of the

claimed invention, but fail to teach a motivation to combine. M.P.E.P. § 2143.01 (citing *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998)).

If the “proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” M.P.E.P. § 2143.01. Similarly, “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teaching of the references are not sufficient to render the claims *prima facie* obvious.” M.P.E.P. § 2143.01. When evaluating whether one or more prior art references suggests or teaches all the claim limitations, each prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. M.P.E.P. § 2141.02. For the reasons the reasons that follow, Applicants respectfully request that the judicially created doctrine of obviousness-type double patenting rejection of claims 1-22 and 26-47 be withdrawn.

Applicants respectfully submit that one of ordinary skill in the art would not be motivated to make the claimed invention in light of the teachings of Harris and Toth. Turning now to Toth, this reference pertains to nuts and caps, wherein “a nut-rotating wrench is ... applied to the wrench flats of the cap to rotate the combination nut cap and nut.” Toth, Col. 1, ll. 30-34. With these types of assemblies a potential problem arises where the cap disengages from the nut. Toth teaches that, “although the nut cap is designed to fit a standard size nut-rotating wrench, when the nut cap disengages from the nut insert, it is difficult, if not impossible to rotate the nut insert because the nut insert, which is positioned inside the cap is “undersized”, i.e., smaller than the standard nut-rotating wrench.” Toth, Col. 1, ll. 50-56. This can create a potentially hazardous situation where a vehicle operator “is unable to change a flat tire on the vehicle once a nut cap has been dislodged from the nut insert because the standard wrench does not properly engage the “undersized” nut insert.” Toth, Col. 1, ll. 56-61.

In view of the above-potential problem, the object of Toth is “to provide a simple but effective way of addressing the problem of providing a decorative and functional cap and wheel nut insert combination, yet in the case of the cap being separated from the wheel nut insert, to provide a suitable remedy for enabling rotation (and thus tightening and loosening) of the non-capped wheel nut insert.” Toth, Col. 1, ll. 62-68. Toth accomplishes

this object by providing a specially shaped cap 22 and a specially shaped nut body 24 that have shapes that are interdependent upon each other.

As shown in Figures 1-6, in all embodiments, the nut body 24 of Toth is provided with first and second longitudinal portions "30, 32" (in figures 1-3), "70, 32" (in figure 4), "74, 76" (in figure 5), and "30, 32" (in figure 6). As Figures 1-6 show, this arrangement allows a first longitudinal portion, 30, 70, 74 of the nut body 24 to be located within a first longitudinal portion 54, 80, 92 of a cap while the second longitudinal portion 32, 76 of the nut body 24 is either located within a second longitudinal portion 56, 72, or 82 of the cap, as in figures 1-5, or uncovered by the cap, as in figure 6. Accordingly, the entire purpose of Toth is to provide a first longitudinal portion 54, 80, 92 on the cap 22 that is located around a first longitudinal portion 30, 70, 74, or 30 of the nut and that receives torque from a standardized wrench and thereby rotates the nut and cap, while, still permitting, in the event the cap becomes accidentally separated from the nut insert, a standardized nut wrench to engage the wrench flats on the second longitudinal portion 32, 72, and 82 of the nut insert. Clearly, the nut of Harris is not provided with the first and second longitudinal portions as taught in Toth. Accordingly, one skilled in the art would not be motivated to utilize the cap 22 of Toth with the nut of Harris. For at least this reason, Applicants respectfully request reconsideration and withdrawal of the judicially created doctrine of obviousness-type double patenting rejection of claims 1-22 and 26-47.

III. The 35 U.S.C. § 102(b) rejections of Claims 1-4, 5-17, and 33-47 should be withdrawn.

For anticipation under 35 U.S.C. § 102, the reference must teach every aspect of the claimed invention. M.P.E.P. § 706.02. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. § 2131 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). "The identical invention must be shown in as complete detail as is contained in the ... claim." M.P.E.P. § 2131 (citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)). For the reasons that follow, Applicant respectfully requests reconsideration and allowance of claims 1-4, 5-17, and 33-47.

A. The 35 U.S.C. § 102(b) rejections of Claims 1-4 should be withdrawn.

Claims 1-4 recite, "an interference fit is achieved between the cap and the nut." According to the Examiner, Bias teaches "a cap (10) over a nut (N) ..., wherein the two are joined by an "interference fit." Additionally, according to the Examiner, Cantrell teaches "a cap (20) over a nut (12) .., wherein the two are joined by an "interference fit." For the reasons that follow, Applicants respectfully contend that neither Cantrell nor Bias teach or suggest "an interference fit is achieved between the cap and the nut."

Turning now to Bias, this reference teaches a clip 30 that contains a plurality of spring-like projections for snap fitting on and off the bolt B over which the cover shell 20 is installed. Bias Col. 3, ll. 12-13 and Figure 3. In Bias, each clip projection on the clip 30 contacts an inner wall of the plastic shell cover 20 as well as an annular side surface of the lug nut N to thereby retain the cover shell 20 on the lug nut N. Bias Col. 3, ll. 17-19 and Figure 3. Bias discloses no other method, either alone or in combination with the clip 30, for retaining the cover shell 20 on the lug nut N. Accordingly, Bias simply does not teach or suggest "an interference fit is achieved between the cap and the nut." For at least this reason, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-4 in view of Bias.

Turning now to Cantrell, this reference teaches a nut 12, 112, and 212 and a cap 20 that includes a groove 26 for receiving an O-ring 25. Cantrell, Col. 2, ll. 47-68 and Figure 2. The O-ring 25 of Cantrell is the component that holds the cap assembly 20 firmly on a nut 12, 112, or 212. Cantrell Col. 3, ll. 8-10 and Figure 2. Cantrell discloses no other method, either alone or in combination with the O-ring, for retaining the cap 20 on the nut, 12, 112, and 212. Accordingly, Cantrell simply does not teach or suggest "an interference fit is achieved between the cap and the nut." For at least this reason, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-4 in view of Cantrell.

B. The 35 U.S.C. § 102(b) rejections of Claims 5-17 and 33-47 should be withdrawn.

Claims 5-17 and 33-47 were rejected under 35 U.S.C. § 102(b) as being anticipated by McKinlay. Claims 5-13 have been amended to recite "a cap retained by the nut," which is not taught by McKinlay. Claims 14-17 have been amended to recite "a nut retaining the cap," which is not taught by McKinlay. Claims 33-47 have been amended to recite "a cap retained by a nut, which is not taught by McKinlay." For at least this reason, Applicants respectfully request withdrawal of the 35 U.S.C. § 102(b) rejection of claims 5-17 and 33-47.

Additionally, Claim 8 recites "a height that is dimensioned ... according to a clearance between threads on the nut and threads on the stud," Claim 9 recites "the height is slightly greater than a clearance between threads on the nut and threads on a stud," Claim 10 recites "a height that is dimensioned ... according to the number of threads per inch on the nut," Claim 11 recites "a height that is dimensioned ... according to the number of Vee-shaped undulations," Claim 12 recites "a height that is dimensioned ... according to the number of Vee-shaped undulations and a number of threads per inch on the nut," Claim 13 recites "a height ... that is proportional to a product of the number of Vee shaped undulations and a number of threads per inch on the nut," claims 38 and 42 recite "a height of the plateaus is dimensioned according to the number of undulations on the annular surface," claims 39 and 43 recite "a depth of the valleys is dimensioned according to the number of undulations on the annular surface," claims 44 and 46 recite "a height of the plateaus is proportional to the product of the number of threads per inch on the nut and the number of Vee shaped undulations on the annular surface," and claims 45 and 47 recite "a depth of the valleys is proportional to the product of the number of threads per inch on the nut and the number of Vee shaped undulations on the annular surface."

With respect to these claims, according to the Examiner, "although McKinlay prefers a plateau height slightly less than the thread pitch for facilitating cam-over and for reducing undue elongation of the threaded stud (4), McKinlay as well as those having an ordinary skill in the art would acknowledge that a greater height could be employed with expected "locking" results due to tensile loading of the stud." However, Applicant points out that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Applicants submit that the above-recited height elements are not taught expressly or inherently by McKinlay. Accordingly, for at least this reason, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 102(a) rejection of these claims.

IV. The 35 U.S.C. § 103(a) rejections of claims 1-47 should be withdrawn:

The legal concept of prima facie obviousness allocates who has the burden of going forward with production of evidence in each step of the examination process. M.P.E.P. § 2142. The Examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. M.P.E.P. § 2142. If the Examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness.

M.P.E.P. § 2142. Furthermore, if an independent claim is nonobvious under 35 U.S.C. § 103, then any claim depending therefrom is nonobvious. M.P.E.P. § 2143.03.

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." M.P.E.P. § 2143.03. "It is essential that office personnel find some motivation or suggestion to make the claimed invention in light of the prior art teachings." M.P.E.P. § 2144.08, Part II.A. A rejection based on a prima facie case of obviousness is improper if the combination of the references teach every element of the claimed invention, but fail to teach a motivation to combine. M.P.E.P. § 2143.01 (citing *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998)).

If the "proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." M.P.E.P. § 2143.01. Similarly, "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teaching of the references are not sufficient to render the claims prima facie obvious." M.P.E.P. § 2143.01. When evaluating whether one or more prior art references suggests or teaches all the claim limitations, each prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. M.P.E.P. § 2141.02. For the reasons the reasons that follow, Applicants respectfully request that the rejection of Claims 1-47 be withdrawn.

A. The 35 U.S.C. § 103(a) rejections of Claims 1-47 as being unpatentable over McKinlay in view of Toth should be withdrawn.

Applicants repeat and reassert the arguments above made with respect to the judicially created obvious type double patent rejection for the purpose of illustrating that one skilled in the art would not be motivated to utilize the cap 22 of Toth in conjunction with the nut 14 of McKinlay. Clearly, the nut 14 of McKinlay is not provided with the first and second longitudinal portions as taught in Toth. Accordingly, one skilled in the art would not be motivated to utilize the cap 22 of Toth with the nut 14 of McKinlay. For at least this reason, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejection of claims 5-47 as being unpatentable over McKinlay in view of Toth.

B. The 35 U.S.C. § 103(a) rejections of Claims 23-25 as being unpatentable over McKinlay in view of Toth, in further view of Notaro should be withdrawn.

Applicants repeat and reassert that one skilled in the art would not be motivated to utilize the cap 22 of Toth in conjunction with the nut 14 of McKinlay. Furthermore, claims 23 recites "a nut having a torque transmitter and a retaining surface" and "the retaining surface is provided with a plurality of notches at an angle." Claims 24 recites "a nut having a torque transmitter and a retaining surface" and "the retaining surface is provided with a frictional surface that is provided with a plurality of notches at an angle between 30° and 60° with respect to the axis of the nut." Claims 25 recites "a nut having a torque transmitter and a retaining surface" and "the retaining surface is provided with a frictional surface that is provided with a plurality of notches at an angle between of 45° with respect to the axis of the nut." According to the Examiner, it would have been obvious to one of ordinary skill in the art to modify the cap and nut taught by McKinlay and Toth by employing a plurality of notches for an interference fit. For the reasons that follow, Applicants respectfully contend that it would not be obvious to utilize the knurls of Notaro and the cap of Toth in conjunction with the nut of McKinlay.

Applicants respectfully submit that one of ordinary skill in the art would not be motivated to make the claimed invention in light of the teachings of Notaro, Toth, and McKinlay. Turning now to Notaro, this reference pertains to two-piece lug bolts that are provided with a head 13 and a shank 15 that are respectively provided with knurled portions 14 and 19. Notaro, Col. 2, ll. 19-21. According to Notaro, "the existence of knurls on both parts also obviates the shaving of the inner portion of the head, which would occur if the inner portion, such as 14' of prior art head 13', is not knurled." Notaro, Col. 2, ll. 22-25. As taught by Notaro, "the fact that a non-knurled head, such as 13', is placed on a knurled portion, such as 19', does cause shaving, which is undesirable." Notaro, Col. 2, ll. 27-30. Applicants submit that one of ordinary skill in the art would not be motivated to employ the knurled portion 19 in conjunction with the cap 22 of Toth. Clearly, the cap 22 of Toth does not include a corresponding knurled portion, such as knurled portion 14. Accordingly, Notaro specifically teaches away from the very combination proposed by the Examiner, since utilizing the cap 22 of Toth in conjunction with the knurled portion 19 Notaro would "cause shaving, which is undesirable." Such a combination renders the prior art invention being modified unsatisfactory for its intended purpose, and, accordingly, there is no suggestion or motivation to make the proposed modification. For at least this reason, Applicants respectfully request reconsideration and withdrawal of the 35 U.S.C. § 103(a)

rejection of claims 23-25 as being unpatentable over McKinlay in view of Toth, further in view of Notaro.

Furthermore, the Examiner proposes taking the head and shank of Notaro and, without explanation as to why one skilled in the art would be motivated to do so, apply it to the combination of Toth and McKinlay. As stated above there is not motivation to combine the cap of Toth with the nut of McKinlay. However, even if there was, there is still no motivation to take the head and shank of Notaro and combine it with the cap of Toth and the nut of McKinlay. One skilled in the art would not be motivated to combine a nut and a bolt together. The teaching of Notaro does not remedy this defect. Applicant respectfully submits that the proposed modification is entirely unworkable.

With respect to the angular elements of claims 23-25, according to the Examiner, "the specific angles of said knurls disclosed by Applicant would be considered obvious modification of Notaro by those having an ordinary skill in the art." Applicant respectfully points out that for a rejection under 35 U.S.C. § 103 to be proper, all the claim limitations must be taught or suggested by the prior art. Clearly, neither Notaro, nor any of the other cited references teach or suggest the angular limitations of claims 23-25. Furthermore, neither Notaro, nor any of the other cited references teach or suggest that "the specific angles of said knurls disclosed by Applicant would be considered obvious modification of Notaro by those having an ordinary skill in the art." Accordingly, for at least this reason, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 23-25.

With respect to the Examiner taking official notice that it is known to provide knurls to press-fit objects, Applicants respectfully traverse the Examiner's finding. According to the M.P.E.P., where "such notice is taken, the basis for such reasoning must be set forth explicitly" and "the examiner must provide specific factual findings predicated on sound technical and scientific reasoning to support his or her conclusion of common knowledge. M.P.E.P. § 2144.03(B). Applicant respectfully contends that a statement that "Notaro broadly discloses "knurls" followed by the statement that the "Examiner takes official notice that it is known to provide knurls to press-fit objects" is conclusory and does not constitute a specific factual finding that is predicated on sound technical and scientific reasoning in support of the Examiner's finding of common knowledge. Furthermore, the fact that Toth utilizes a force fit, yet, does not disclose or suggest knurls, contradicts the Examiner's

assertion that such knurls are common knowledge. Accordingly, for at least these reasons, Applicants traverse the Examiner's official notice finding.

V. Conclusion.

In view of the above, Applicants submit that the subject matter of the present application is novel, non-obvious, and useful. It is therefore respectfully requested that the present application issue as early as possible.

Respectfully Submitted,

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